MARKED-UP VERSION OF THE AMENDED CLAIMS

1. (currently amended) Gas spring damper unit for a motor vehicle comprising a cylinder casing (1) and a cylinder piston (4) shiftable in the cylinder casing (1) and having a piston rod (5), wherein the cylinder piston (4) is sealed relative to the cylinder casing [[(4)]] (1) by a sealing element (12) and wherein the piston rod (5) is connected to the cylinder casing (1) by rolling bellows (8), where by a spring damper chamber (13) becoming smaller upon spring compression and a damper chamber (14) becoming larger upon spring compression are formed, wherein the two chambers are connected by a throttle acting in two directions and disposed in the cylinder piston (4) [[(1)]] and wherein this throttle comprises one or several overflow throttles (15), characterized in that

-the overflow throttles (15) have in each case a flow resistance different depending on a gas flow through direction through the overflow throttles (15), and

-the flow resistance of each of the overflow throttles (15) is dimensioned such in at least one of the passing through directions that a critical Reynolds number for the transition from the laminar into the turbulent kind of flow is disposed within a pressure difference over the overflow throttle (15), wherein the pressure difference is predeterminable from the possible piston speeds.

2. (original) Gas spring damper unit according to claim 1, characterized in that the functional effective center of gravity of all flow through resistances of the flow through throttle (15) is disposed at a point outside of the radial center axis of the cylinder piston (4) and on the same side of the cylinder piston (4).

3. (original) Gas spring damper unit according to claim 2 characterized in that the functional effective center of gravity of all flow resistances of the overflow throttles (15) is disposed on the side of the spring damper chamber (13) decreasing in size.

4. (original) Gas spring damper unit according to claim 3 characterized in that the flow resistance of each over flow throttle (15) is determined by the length of the throttle, the cross-section of the throttle, the shape of the throttle and/or the wall properties of the throttle.

5 . (currently amended) Gas spring damper unit for a motor vehicle comprising a cylinder casing (1) and a cylinder piston (4) shiftable in the cylinder casing (1) and having a piston rod (5), wherein the cylinder piston (4) is sealed relative to the cylinder casing 1 [[(4)]] by a sealing element (12) and wherein the piston rod (5) is connected to the cylinder casing (1) by rolling bellows (8), where by a spring damper chamber (13) becoming smaller upon spring compression and a damper chamber (14) becoming larger upon spring compression are formed, wherein the two chambers are connected by a throttle acting in two directions and disposed in the cylinder piston (4)

[[(1)]] and wherein this throttle comprises one or several overflow throttles (15), characterized in that

-the overflow throttles (15) have in each case a different flow resistance depending on an air flow passage direction through the overflow throttles, and

-the overflow throttles (15) comprising in each case a passing through throttle bore hole with at least one cross-sectional narrowing, wherein

-the functional effective center of gravity of all flow resistances of the overflow throttle (15) is disposed at a point outside of the radial central axis of the cylinder piston (4), and

-the throttle bore hole is dimensioned such that a critical Reynolds number for the transition from a laminar flow kind to a turbulent flow kind occurs within the possible piston speeds and in at least one air passage flow direction through the overflow throttles.

6. (original) Gas spring damper unit according to claim 5 characterized in that the functional effective center of gravity of

all flow resistances of the flow through throttle (15) is disposed on the same side of the cylinder piston hole (4).

7. (original) Gas spring damper unit according to claim 6 characterized in that the functional effective center of gravity of all flow resistances of the overflow throttle (15) is disposed on the side of the smaller becoming spring damper chamber (13).

8. (original) Gas spring damper unit according to claim 7 characterized in that the flow resistance of each overflow throttle (15) is determined by the length of the throttle, the cross-section of the throttle, the shape of the throttle and/or the wall properties of the throttle.

9. (currently amended) A gas spring damper unit for a motor vehicle comprising

a cylinder casing (1);

a cylinder piston (4) shiftable in the cylinder casing (1) and having a piston rod (5) attached;

a sealing element (12), wherein the cylinder piston (4) is sealed relative to the cylinder casing (1) [[(4)]] by the sealing element (12);

rolling bellows (8) connecting the piston rod (5) to the cylinder casing (1); whereby a spring damper chamber (13) becoming smaller upon spring compression and a damper chamber (14) becoming larger upon spring compression are formed;

a general throttle connecting the spring damper chamber (13) to the damper chamber (14), wherein the general throttle acts in two directions and is disposed in the cylinder piston (4) [[(1)]] and wherein the general throttle includes an overflow throttle (15) having a difference of a flow resistance such that the flow resistance in a higher flow resistance direction is at least about 5 percent higher as the flow resistance in a lower flow resistance direction.

10. (original) The gas spring damper unit according to claim 9 wherein the overflow throttle (15) is formed by a bore hole, has a flow resistance relative to the flow passage direction such that the gas weight throughput in the direction of less flow resistance of the bore hole can be from about 1.2 to 20 times the gas weight throughput in the direction of higher flow resistance

11.(original) The gas spring damper unit according to claim 9 wherein the diameter of a bore hole of the overflow throttle (15) is disposed from a first opening of the bore hole to an second opening of the bore hole within a ratio of from 1 to 10 up to a ratio of 1 to 1.2

12. (original) The gas spring damper unit according to claim 11 wherein

- the functional effective center of gravity of all flow resistances of the overflow throttle (15) is disposed at a point outside of a radial central axis of the cylinder piston (4).

13.(original) The gas spring damper unit according to claim 9 wherein

a bore hole of the throttle (15) is dimensioned such that a transition from a laminar flow to a turbulent flow occurs within possible piston speeds and in a passage flow direction having a higher flow resistance.

14. (original) The gas spring damper unit according to claim 9 wherein a functional effective center of gravity of all flow resistances of the over flow throttle (15) is disposed on a same side of a cylinder piston hole (4).

15. (original) The gas spring damper unit according to claim 14 wherein the functional effective center of gravity of all flow resistances of the overflow throttle (15) is disposed on the side of the smaller becoming spring damper chamber (13).

16. (original) The gas spring damper unit according to claim 15 wherein the flow resistance of each overflow throttle (15)

is determined by the length of the throttle, the cross- section of the throttle, the shape of the throttle and/or the wall properties of the throttle.

17.(original) The gas spring damper unit according to claim 9 wherein a bore hole of the overflow throttle (15) has a conical section and wherein a cone face of the conical section is disposed at a cone angle from about 10 to about 70 degrees relative to a longitudinal axis of the bore hole of the throttle (15).

18. (new) A gas spring damper unit for a motor vehicle comprising

a cylinder casing (1);

a cylinder piston (4) shiftable in the cylinder casing (1) and having a piston rod (5) attached, and subdividing the casing (1) into a spring damper chamber (13) disposed relatively remote to the piston rod (5) and a damper chamber (14) disposed adjacent to the piston rod (5) and wherein the cylinder piston

(4) forms a sliding wall between the spring damper chamber (13) and the damper chamber (14);

a sliding sealing element (12) disposed between a periphery of the wall of the cylinder piston (4) and an inner face of the cylinder casing (1) and wherein the sliding sealing element (12) seals the spring damper chamber (13) from the damper chamber (14);

rolling bellows (8) connecting the piston rod (5) to the cylinder casing (1) whereby a sealing is furnished between the piston rod (5) and the cylinder casing (1) for closing the damper chamber (14) and wherein the spring damper chamber (13) becomes smaller upon spring compression of the piston rod (5) and wherein the damper chamber (14) becomes larger upon spring compression of the piston rod (5);

a first tapered borehole (15) formed in the sliding wall between the spring damper chamber (13) and the damper chamber (14) and defining a first larger opening on a first side of the sliding wall and defining a first smaller opening on a second side of

the sliding wall and connecting the spring damper chamber (13) to the damper chamber (14),

wherein the first tapered borehole (15) exhibits a difference .of a flow resistance such that the flow resistance in a flow direction from the first smaller opening to the first larger opening is at least about 5 percent higher as the flow resistance in a flow direction from the first larger opening to the first smaller opening;

a second tapered borehole formed in the sliding wall between the spring damper chamber (13) and the damper chamber (14) and defining a second larger opening on the first side of the wall and defining a second smaller opening on the second side of the sliding wall and connecting the spring damper chamber (13) to the damper chamber (14),

wherein the second tapered borehole (15) exhibits a difference .of a flow resistance such that the flow resistance in a flow direction from the second smaller opening to the second larger opening is at least about 5 percent higher as the flow resistance

in a flow direction from the second larger opening to the second smaller opening.

19.(new) The gas spring damper unit according to claim 18 further comprising

a third tapered borehole formed in the sliding wall between the spring damper chamber (13) and the damper chamber (14) and defining a third larger opening on the first side of the sliding wall and defining a third smaller opening on the second side of the sliding wall and connecting the spring damper chamber (13) to the damper chamber (14),

wherein the third tapered borehole (15) exhibits a difference .of a flow resistance such that the flow resistance in a flow direction from the third smaller opening to the third larger opening is at least about 5 percent higher as the flow resistance in a flow direction from the third larger opening to the third smaller opening.

20.(new) The gas spring damper unit according to claim 18

wherein the ratio of the diameter of the first smaller opening to the diameter of the first larger opening is in the range of from about 1 to 6 to 1 to 10.

21. (new) A gas spring damper unit for a motor vehicle comprising

a cylinder casing (1) having an interior;

a cylinder piston (4) disposed in the interior of the cylinder casing (1) and shiftable in the cylinder casing (1);

a piston rod (5) attached to the cylinder piston (4);

a spring damper chamber (13) disposed in the interior of the cylinder casing (1) and disposed on a side of the cylinder piston (4) relatively remote to the piston rod (5);

a damper chamber (14) disposed in the interior of the cylinder casing (1) and disposed adjacent to the piston rod (5) and wherein the cylinder piston (4) forms a sliding disk between the spring damper chamber (13) and the damper chamber (14);

a sliding sealing element (12) disposed between a periphery of the sliding disk of the cylinder piston (4) and an inner face of

the cylinder casing (1) and wherein the sliding sealing element (12) seals the spring damper chamber (13) from the damper chamber (14);

a flexible sealing element (8) connecting the piston rod (5) to the cylinder casing (1) whereby a sealing is furnished between the piston rod (5) and the cylinder casing (1) for closing the damper chamber (14) and wherein the spring damper chamber (13) becomes smaller upon spring compression of the piston rod (5) and wherein the damper chamber (14) becomes larger upon spring compression of the piston rod (5);

a first tapered borehole (15) formed in the sliding disk between the spring damper chamber (13) and the damper chamber (14) and defining a first larger opening on a first side of the sliding disk and defining a first smaller opening on a second side of the sliding disk and connecting the spring damper chamber (13) to the damper chamber (14),

wherein the first tapered borehole (15) exhibits a turbulent flow in a flow direction from the first smaller opening to the first larger opening while a certain larger pressure prevails on

the second side of the sliding disk and while a certain smaller pressure prevails at the first side of the sliding disk and exhibits a laminar flow in a flow direction from the first larger opening to the first smaller opening while the certain larger pressure prevails on the first side of the sliding disk and while the certain smaller pressure prevails on the second side of the sliding disk;

a second tapered borehole formed in the sliding disk between the spring damper chamber (13) and the damper chamber (14) and defining a second wide opening on the first side of the sliding disk and defining a second smaller opening on the second side of the sliding disk and connecting the spring damper chamber (13) to the damper chamber (14),

wherein the second tapered borehole (15) exhibits a turbulent flow in a flow direction from the second smaller opening to the second larger opening while the certain larger pressure prevails on the second side of the sliding disk and while a certain smaller pressure prevails at the first side of the sliding disk and exhibits a laminar flow in a flow direction from the

second larger opening to the second smaller opening while the certain larger pressure prevails on the first side of the sliding disk and while a certain smaller pressure prevails on the second side of the sliding disk.

22.(new) The gas spring damper unit according to claim 21 further comprising

a third tapered borehole formed in the sliding disk between the spring damper chamber (13) and the damper chamber (14) and defining a third wide opening on the first side of the sliding disk and defining a third smaller opening on the second side of the sliding disk and connecting the spring damper chamber (13) to the damper chamber (14),

wherein the third tapered borehole (15) exhibits a turbulent flow in a flow direction from the third smaller opening to the third larger opening while the certain larger pressure prevails on the second side of the sliding disk and while a certain smaller pressure prevails at the first side of the sliding disk and exhibits a laminar flow in a flow direction from the third larger opening to the third smaller opening while the certain larger

pressure prevails on the first side of the sliding disk and while a certain smaller pressure prevails on the second side of the sliding disk.

23. (new) A method of asymmetrically damping in a gas spring damper unit for a motor vehicle comprising the steps of:

furnishing a cylinder casing (1) having an interior;

placing a shiftable cylinder piston (4) in the interior of the cylinder casing (1);

attaching a piston rod (5) to the cylinder piston (4);

forming a spring damper chamber (13) in the interior of the cylinder casing (1), wherein the sping damper chamber is disposed on a side of the cylinder piston (4) relatively remote to the piston rod (5);

forming a damper chamber (14) in the interior of the cylinder casing (1), wherein the damper chamber (14) is disposed adjacent to the piston rod (5) and wherein the cylinder piston (4) forms a sliding disk between the spring damper chamber (13) and the damper chamber (14);

placing a sliding sealing element (12) between a periphery of the sliding disk of the cylinder piston (4) and an inner face of the cylinder casing (1) and wherein the sliding sealing element (12) seals the spring damper chamber (13) from the damper chamber (14);

connecting the piston rod (5) to the cylinder casing (1) with a flexible sealing element (8), whereby a sealing is furnished between the piston rod (5) and the cylinder casing (1) for closing the damper chamber (14);

decreasing a volume of the spring damper chamber (13) upon spring compression of the piston rod (5);

increasing a volume of the damper chamber (14) upon spring compression of the piston rod (5);

forming a first tapered borehole (15) in the sliding disk between the spring damper chamber (13) and the damper chamber (14);

defining a first larger opening on a first side of the sliding disk;

defining a first smaller opening on a second side of the sliding

disk and thereby connecting the spring damper chamber (13) to the damper chamber (14);

exerting a certain larger pressure on the second side of the sliding disk and a certain smaller pressure at the first side of the sliding disk;

generating a turbulent flow in the first tapered borehole (15) in a flow direction from the first smaller opening to the first larger opening;

exerting the certain larger pressure on the first side of the sliding disk and the certain smaller pressure on the second side of the sliding disk;

generating a laminar flow in a flow direction from the first larger opening to the first smaller opening;

forming a second tapered borehole (15) in the sliding disk between the spring damper chamber (13) and the damper chamber (14);

defining a second larger opening on a first side of the sliding disk;

defining a second smaller opening on a second side of the sliding disk and thereby connecting the spring damper chamber (13) to the damper chamber (14);

exerting the certain larger pressure on the second side of the sliding disk and the certain smaller pressure at the first side of the sliding disk;

generating a turbulent flow in the second tapered borehole (15) in a flow direction from the second smaller opening to the second larger opening;

exerting the certain larger pressure on the first side of the sliding disk and the certain smaller pressure on the second side of the sliding disk;

generating a laminar flow in a flow direction from the second larger opening to the second smaller opening.

24. (new) The method according to claim 23 further comprising:

forming a third tapered borehole (15) in the sliding disk between the spring damper chamber (13) and the damper chamber (14);

defining a third larger opening on a first side of the sliding disk;

defining a third smaller opening on a second side of the sliding disk and thereby connecting the spring damper chamber (13) to the damper chamber (14);

exerting the certain larger pressure on the second side of the sliding disk and the certain smaller pressure at the first side of the sliding disk;

generating a turbulent flow in the third tapered borehole (15) in a flow direction from the third smaller opening to the third larger opening;

exerting the certain larger pressure on the first side of the sliding disk and the certain smaller pressure on the second side of the sliding disk;

generating a laminar flow in a flow direction from the third larger opening to the third smaller opening.

24. (new) The method according to claim 23 further comprising:

employing a flow direction from the first smaller opening to the first larger opening and generating thereby a turbulent flow in the first tapered borehole (15);

reversing the flow direction into a flow direction from the first larger opening to the first smaller opening and generating thereby a laminar flow in the first tapered borehole (15).